1. Introduction

The topic of this paper is the question of in virtue of what first-person thoughts refer to what they do (or, for those who prefer not to use ‘refer’ when speaking about thoughts, in virtue of what first-person thoughts are about what they are about). This can seem like an odd question, because it seems so obvious that first-person thoughts are about the person thinking them. Being about the thinker of the thought seems to be part of what it is to be a first-person thought. But its being obvious that first-person thought is always about the person thinking it does not make it obvious in virtue of what this is the case. (Any more than its being obvious that some uses of "Aristotle" refer to a certain philosopher makes it obvious in virtue of what this is the case.) Let us call the question of in virtue of what a first-person thought refers to what it refers to (or is about what it is about) the Question of First-Person Aboutness. My focus here will be on a dilemma arising from this question. On the one hand, approaches to answering this question that promise to be satisfying seem doomed to be inconsistent with the aforementioned truism that...
first-person thought is always about the thinker of the thought. But on the other hand, ensuring consistency with that truism seems doomed to make any answer to the Question of First-Person Aboutness unsatisfying.

Contrary to a careful and enticing recent effort to both sharpen and escape this dilemma by Daniel Morgan, I will argue that the dilemma resists this effort. At present, I do not see a good way of escaping it. I find this troubling in part because I am drawn to a general view of what it is for things (at any rate, concrete things, human beings included) to be genuinely thought about, or "in" our thoughts. This view holds that one requirement is that the thinker has a perception-based form of acquaintance with the things thought about. This view in turn requires an answer to the Question of First-Person Aboutness that seems certain to be speared on the first horn of the dilemma. The type of answer required by the acquaintance view of reference determination is different from the type of answer that Morgan defends against the dilemma. But they face similar challenges stemming from the idea that first-person thought is guaranteed to be about the person thinking it. Moreover, it is not clear that either of them can overcome these challenges. My goal here is to show the power of the dilemma by homing in on the types of cases that make the horn of violating the guarantee of reflexive reference the sharpest. It is hard to see how a satisfying answer to the Question of First-Person Aboutness can avoid this problem. But giving up on the search for a satisfying answer is also unappealing. I conclude that the dilemma remains, with the acquaintance view of reference-determination as one of its hostages.

The plan for the paper is as follows. In section 2, I will set out the general acquaintance-based view of what it is for things to be in thought that I favor, and that I take to be threatened by the case of first-person thought. In section 3, I will explain how first-person thought threatens this view, as well as broadly epistemic views about what determines the reference of first-person thought. In the central part of the paper, section 4, I will refine the challenge from first-person thought, taking account of Morgan's effort to disarm the challenge to broadly epistemic views of reference determination, and showing its persistence for both acquaintance-based and broadly epistemic views. In section 5, I will consider François Recanati's answer to the Question of First-Person Aboutness, arguing that it falls on the second horn of
the dilemma articulated in the opening paragraph. Section 6 concludes.

2. Extended Acquaintance Requirements on Being in Thought

I will start by setting out the form of acquaintance requirement on a thing's being thought about that I favor. When it comes to thinking about something, or something’s being thought about or in thought, we can make a broad distinction between a more and less substantial form of this relation. For instance, there seems to be a difference between thinking that there is a unique individual who is the oldest human currently living and thinking about Kane Tanaka, in particular. In the first case, one is, in some sense, thinking about Kane Tanaka, since she is (at the time of writing, and trusting Wikipedia) the oldest human currently living. But this seems quite different from thinking about Kane Tanaka because you are looking at her, or talking to her, or remembering her. In the latter cases, Kane Tanaka in particular seems to figure in your thought in a more substantial way than in the former.

It is not easy to make this intuitive difference precise. Bertrand Russell used a notion of "acquaintance" to do so. He argued that for a thing to be in one's thought in the second, more substantial way, one had to be "acquainted" with it. On one ordinary understanding of "being acquainted" with something, there is something intuitive about this requirement, since one need not be acquainted (in that ordinary sense) with Kane Tanaka to think that there is a unique oldest currently living human, or to go on to think things about whoever satisfies that condition. But to think about her as a result of seeing her or remembering her, one would need to be (in the ordinary sense) acquainted with her. Russell, of course, was not using this ordinary notion, but understood acquaintance as such an unimpeachable epistemic relation that even those who see and talk to Kane Tanaka are not acquainted with her and can think about her only in the same insubstantial way as those who consider that there is a unique oldest currently living human (i.e., they can think of her only "by description").

Nonetheless, a tradition stemming from Russell retains the idea that a useful line

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2 Morgan (2015).
can be drawn between the more and less substantial ways for a thing to be in thought by appeal to a (less epistemically demanding) notion of acquaintance. A common denominator for this tradition, articulated by Robin Jeshion, is that the relevant kind of acquaintance must satisfy the following condition, which she calls the "Standard-Standard on Acquaintance": “One can be acquainted with an object O only by perception, memory, and communication chains.”

To spell this out a little more, we can enumerate the kinds of events or episodes that can give a thinker acquaintance with an object, according to the Standard-Standard. These are: (i) instances of perceiving the object, (ii) instances of being referred to the object via a communication chain originating in someone’s perception of the object and (iii) instances of remembering the object, where the memory derives either from one’s past perceptions of the object or from one’s past uptake of the object via being referred to it. I will call these S-acquaintance instances (the "S-") is to signify that they meet the Standard-Standard).

In an earlier paper I distinguished two ways of using the Standard-Standard notion of acquaintance to articulate a requirement on having a thing in thought in the more substantial way just alluded to. These two ways differ with respect to how they spell out what this "more substantial" way of having a thing in thought amounts to. On the first kind of acquaintance requirement, the "more substantial" way is for the thing to figure in the content of one’s thought, and acquaintance with the thing is required for this. On the second kind of acquaintance requirement, the "more substantial" way is for the thing to be in one’s thought in a non-satisfactional way (i.e., for it to be in one’s thought not in virtue of satisfying a condition that is also in thought), and acquaintance with the thing is required for this.

A requirement of the second kind is:

**Non-satisfactional Acquaintance Requirement (NAR):**

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4. Jeshion (2010: 109). The tradition endorsing an acquaintance requirement on the substantial way of having a thing in thought, and understanding acquaintance in accord with the Standard-Standard, has been called “the extended acquaintance tradition” (Dickie 2016) and “causal acquaintance” (Hawthorne and Manley 2012).
5. By “being referred to the object,” I mean roughly what Bach (2008) means by it: in understanding someone’s use of a word to refer to an object, one is referred to that object.
For a concrete object to be thought about in a non-satisfactional way, it must be thought about partly in virtue of one or more S-acquaintance instances.

Note that this requirement is restricted to concrete (as opposed to abstract) objects. The restriction sets to one side the challenge that abstract objects cannot be perceived, so if they can be in thought in a non-satisfactional way, then the acquaintance requirement fails. This is a serious and interesting challenge to a general acquaintance requirement on being thought about in a non-satisfactional way. Addressing it requires taking up the broader question of how it is possible to think and know about abstract objects if they are causally inefficacious. This paper leaves that question for another time and focuses on whether an acquaintance requirement on being in thought non-satisfactionally is defensible even for concrete objects.

Another thing to note about NAR is that it not only requires that S-acquaintance instances coincide with non-satisfactional thought about concrete objects, but that it is in virtue of these S-acquaintance instances that concrete objects are thought about in a non-satisfactional way. The idea behind NAR is that S-acquaintance is part of the mechanism of reference for thoughts that are non-satisfactionally about concrete objects. Part of what binds these thoughts to the objects they are about is the connection of these thoughts to thinkers' perceiving, being referred to, or remembering the objects. Of course, there are different views about what sort of connection is required so as to spell out the full mechanism. All that NAR requires is that S-acquaintance figures in that story.

3. The challenge from first-person thought

NAR is a plausible principle. Many of the kinds of examples that have been brought to bear against acquaintance requirements on "singular thought" are cases in which an object is clearly being thought about in virtue of satisfying a condition invoked in thought, and yet it is claimed to be intuitive that the content of the thought is singular with respect to that object—it is that object, not the condition that

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brings it into thought, which figures in the content of the thought. Since these are clearly not cases of objects being thought about non-satisfactionally, they do not threaten NAR. Instead, NAR is threatened by cases in which it seems that a thought is about a concrete object both non-satisfactionally and not in virtue of S-acquaintance with the object. In the aforementioned paper I identified two such challenges: one based on cases, adduced by David Kaplan and Imogen Dickie, in which a thinker seems to think non-satisfactionally of an object in virtue of perceiving evidence of the object but not the object itself; the other based on first-person thought. My focus in this paper is the challenge to NAR from first-person thought. In particular, I aim to get clear on what the heart of the challenge is.

3.1. The structure of the challenge to NAR

The challenge to NAR from first-person thought is based on the following three claims:

1. First-person thoughts are about concrete objects (i.e., human beings).
2. First-person thoughts are not about particular human beings satisfactionally, i.e. in virtue of those human beings satisfying conditions that figure in the thoughts.
3. First-person thoughts are not about particular human beings in virtue of the thinkers' S-acquaintance with those human beings.

If all three of these claims are true, then first-person thoughts are counterexamples to NAR. By "first-person thoughts," I refer to the kind of thoughts we express in language using the grammatical first person. (This is not a definition, but only a way of pointing you to the thoughts in question.) Examples include my occurrent thought that I am tired or my standing belief that I was born in Boston.

I am inclined to accept claims 1 and 2. Concerning 1, it is compelling that my

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8 See Pepp (forthcoming) for discussion.
first-person thoughts are about the same thing that certain third-person thoughts on the part of other thinkers are about: namely me, a certain human being. Whatever I, this human being, ultimately am metaphysically speaking, I also find it compelling that this individual is just as perceptible as, say, tables and chairs, and hence is concrete enough for purposes of the present discussion.

To reject 2, one might, in a Russellian vein, argue that first-person thoughts are about particular human beings in virtue of those human beings satisfying conditions that figure in a thinker’s thought such as the condition of being the person experiencing this, where "this" anchors the condition in a particular mental episode (or other unit of mentation). I am not drawn to such an approach, for two reasons. First, it is not clear why thought about experiencing a mental particular would be prior to first-person thought. Indeed, it seems more likely that the idea or concept of someone’s experiencing a mental particular would be derived from first-person thought about one’s own experiences, at least ontogenetically. Second, even if first-person thought is satisfactional in this way, the reduction relies on mental items being thought about non-satisfactionally. Thus, a defender of NAR will face the task of arguing that we are S-acquainted with our own mental episodes, which arguably would be a way of being S-acquainted with ourselves.10

Claim 3, it seems to me, is the most promising of the three claims for a defender of NAR to reject. It is a (negative) partial answer to the Question of First-Person Aboutness. Thus, to reject Claim 3 would be to defend a broad positive answer to that question: namely, that first-person thoughts are about what they are about partly in virtue of being based upon a perceptual, memory, or communicative connection of the right sort to the object. "Connection of the right sort" is a placeholder: what counts as the right sort of connection could be specified in different ways. One approach would be to fill the placeholder with some sort of epistemic restriction, so that only connections that provide epistemic benefits (such as enabling the thinker to gain knowledge or true beliefs about the object) qualify.11

9 See Kaplan (2012: 144) and Dickie (2016: chapter 6).
10 Alternatively, in a Fregean vein, one might argue that first-person thoughts are about particular human beings in virtue of those human beings satisfying conditions imposed by private, primitive self-concepts that are present in thought. The problem here is that it is not at all clear what sort of conditions these would be.
11 François Recanati (2012) calls such relations "epistemically rewarding." (I will return to Recanati’s own answer to the Question of First-Person Aboutness in section 5 below).
A different approach would be to fill the placeholder with a less epistemically loaded restriction, perhaps requiring the connection to be information-carrying only in the sense that it allows the object to make some sort of cognitive impact on the thinker, whether or not this enables epistemic advance.\textsuperscript{12} Let us call this broad view of reference determination for thoughts—however "the right sort of connection" is ultimately spelled out—\textit{Aboutness through S-acquaintance}. Another broad kind of view of reference determination for thoughts (which might overlap with Aboutness through S-acquaintance) is what I will call \textit{Aboutness through Epistemic Gain}. On this kind of view, a thought is about what it is about partly in virtue of being based upon the thinker's ways of gaining knowledge (or justified true belief, or some other epistemically positive status) about that thing.

Gareth Evans famously defended (albeit tentatively) a version of Aboutness through Epistemic Gain for first-person thoughts.\textsuperscript{13} But familiar problems for the view can make it seem hopeless.\textsuperscript{14} These problems stem from hypothetical cases designed to show that if Aboutness through Epistemic Gain were correct for first-person thoughts, then some first-person thoughts would fail to be about the person thinking them. But it is a truism that first-person thoughts are always about the person thinking them, so Aboutness through Epistemic Gain cannot be right when it comes to first-person thoughts. The hypothetical cases used to support this argument may be divided into two types, what I will call \textit{absences cases} and \textit{diversion cases}. They serve equally well as problems for Aboutness through S-acquaintance as they do for Aboutness through Epistemic Gain. Thus it is useful for someone like me, who is inclined to defend NAR, to consider the implications of this discussion for S-acquaintance-based views.

Before I introduce the two types of case, it is worth a brief glance at the most prominent alternative to Aboutness through Epistemic Gain (or to Aboutness through S-acquaintance) for the case of first-person thought. I will call this alternative \textit{First-Person Aboutness by Reflexive Rule}. This is the view that first-person thoughts are about what they are about in virtue of being governed by the rule that they refer to whoever thinks them. This view is not threatened by the kinds of cases I

\begin{footnotes}
\item[12] See Julie Wulfemeyer (2017) for development of such a view.
\item[13] In Chapter 7 of \textit{Varieties of Reference} (1982).
\end{footnotes}
am about to describe. But, as Morgan convincingly argues, nor does it provide a satisfying answer to the Question of First-Person Aboutness. This is because it is not clear in what sense first-person thoughts are governed by such a rule. If to say that they are governed by this rule is just to say that, in fact, first-person thoughts always refer to the one who thinks them, then the Reflexive Rule view describes the reference of first-person thoughts but is silent about what determines that reference—i.e., about in virtue of what first-person thoughts always refer to the one who thinks them. In other words, the Reflexive Rule view on this interpretation does not answer the Question of First-Person Aboutness at all. On the other hand, understood as an answer to this question, the Reflexive Rule view seems false. It might be accepted that rules (i.e., the conventions of language) make it the case that uses of the pronoun "I" refer to the one who uses the word, but no such conventional rules govern thoughts. Thus, if the cases I am about to describe tempt one to resort to Aboutness by Reflexive Rule, it should be held in mind that this is tantamount to giving up on answering the Question of First-Person Aboutness. This is the second horn of the dilemma of which the problems about to be raised are the first horn.

3.2. Absence and diversion cases

Now to the cases. First let us consider absence cases. Elizabeth Anscombe suggested the following scenario:

And now imagine that I get into a state of ‘sensory deprivation’. Sight is cut off, and I am locally anaesthetized everywhere, perhaps floated in a tank of tepid water; I am unable to speak, or to touch any part of my body with any other. Now I tell myself ‘I won’t let this happen again!’

As this is a "sensory deprivation" scenario, the subject is presumably not receiving information about herself either via external senses or via bodily senses (e.g. proprioception, kinaesthesia, nociception). It seems that having one's external senses cut off would also entail that one is not being referred linguistically to oneself via a communication chain originating in someone's perception of one. Evans added to

15 See Morgan (2015: 1801-1802).
16 Morgan also considers whether Peacocke’s (2008) view should be seen as treating first-person thought as having its reference determined by a primitive rule of reflexive reference (as opposed to merely being correctly described as always referring to the thinker). He concludes that this is not clear, and that if the rule is treated by Peacocke as a primitive determiner of reference, it is not clear why we should accept this.
Anscombe’s scenario the possibility that the person could also have amnesia and thus not be receiving any information about herself via memory.\textsuperscript{18} This seems to leave no instances of S-acquaintance for a first-person thought to be based on. Nonetheless, says Evans, the person in this scenario "may still be able to think about himself, wondering, for example, why he is not receiving information in the usual ways." If there is first-person thought about oneself in the absence of any S-acquaintance with oneself on which the thought could plausibly be based, this is a problem for Aboutness through S-acquaintance and for NAR. The case also seems like a problem for Aboutness through Epistemic Gain, since the subject's ways of gaining knowledge of herself are disabled.

Next let us consider diversion cases. David Armstrong suggested the following scenario:

\begin{quote}
We can conceive of being directly hooked-up, say by transmission of waves in some medium, to the body of another. In such a case we might become aware e.g. of the movements of another's limbs, in much the same sort of way that we become aware of the motion of our own limbs.\textsuperscript{19}
\end{quote}

In this case, the subject is receiving information via proprioception—a likely kind of perception to determine the reference of first-person thoughts, given that it is a sense dedicated to perceiving the perceiver. But the information she receives is not about herself, but about someone else. If she then has the first-person thought, based on this information, that she is walking, and if the reference of this thought is determined partly by the perceptual connection on which it is based, it would seem that this first-person thought should be about the other person. Or, at least, there should be some uncertainty regarding whom it is about. But this seems wrong: the thought is about the person thinking it. This suggests that the thought’s connection to the thinker's perception and memory, or to her ways of gaining knowledge, is not part of what makes the thought be about what it is about. This calls Aboutness through S-acquaintance, together with NAR, and Aboutness through Epistemic Gain into question.

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4. Refining the challenge from first-person thought

Morgan mounts a strong defense of Aboutness through Epistemic Gain, arguing that absence cases are not as much of a problem as they appear to be, while diversion cases are harder to deal with but still leave various options open for defenders of Aboutness through Epistemic Gain. My own investigations in this section will suggest that the situation is reversed, both for Epistemic Gain theorists and for S-acquaintance theorists. Diversion cases can be handled, while absence cases, properly described, show the core of the problem posed by first-person thought for these two kinds of view about reference determination.

4.1. Absence cases

I will begin with absence cases. It is notable that in presenting their scenarios of sensory and memory deprivation, both Anscombe and Evans describe the subject’s first-person thought as a reaction to her situation. Anscombe’s subject thinks (what she might express in language as) "I won’t let this happen again." Evans’s subject wonders "why he is not receiving information in the usual ways." Calling attention to the reaction that a subject would have to finding herself in a deprivation scenario makes it intuitive that someone in such a situation would, and a fortiori could, have first-person thoughts. But it should also lead us to question whether the cases described by Anscombe and Evans are really cases in which all perceptual, memory, and communicative connections of the right sort to determine the aboutness of first-person thoughts are absent. For if the first-person thoughts that a subject would have in these scenarios are reactions to her situation, then this suggests that she is somehow aware of, or receiving information about, how things are with herself.

In this vein, Morgan suggests that the subjects in these scenarios remain able to introspect—to "rely on [their] direct way of gaining knowledge of [their] own mental properties."20 It is plausible that their first-person thoughts are based upon this way of gaining knowledge of themselves. For the purposes of defending Aboutness through S-acquaintance (and thereby defending NAR), one would have to argue that the kind of introspection on which these thoughts are based is plausibly perceptual,

or at least enough like perception that it does not violate the spirit of S-acquaintance. It seems to me that this condition will be met if the kind of introspection on which these thoughts are based is a means of detecting pre-existing mental states, properties or events. There is reason to suppose that the first-person thoughts we imagine people having in these scenarios would indeed be based upon the detection of a prior mental property or condition: the property or condition of not being perceptually aware in the usual ways and not having memories.

Of course, these scenarios are not really so easy to imagine, and it is not entirely clear what we are supposed to imagine, especially concerning the subject’s loss of memory. Are we to imagine her lacking all forms of memory—episodic memory, semantic memory, working memory, procedural memory and so on—or only some sub-class of these? I am not sure what the mental life of someone lacking all of these would or could be like, including whether or not they would or could have first-person thoughts (or any thoughts at all), especially when also deprived of all perceptual stimulus. But to make the best case against NAR, one might stipulate that the subject lacks all memory that counts as S-acquaintance with herself. (This would mean that her first-person thoughts could not satisfy NAR by their connection to memory instances of S-acquaintance with herself.) So, she might still remember things such as that Paris is the capital of France, or how to ride a bike. If so, then it might be suggested that she could have what Tyler Burge calls "cogito-like thoughts". These are thoughts in which one thinks a thought as part of the act of self-ascribing that thought. For example, the subject might think that she is thinking that Paris is the capital of France, where the thinking that Paris is the capital of France occurs as part of the thinking that she is thinking this. This would be a first-person thought, but it would seem to involve no detection of a prior mental condition of thinking that Paris is the capital of France.

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21 This is not critical for Morgan’s purposes, since he is defending a version of Aboutness through Epistemic Gain: the view that the reference of first-person thoughts is determined by our “ways of gaining knowledge of ourselves.” These ways of gaining knowledge need not be exhausted by instances of S-acquaintance. He notes that even if “it is wrong to think of introspection as a faculty that is just like vision, except that it is trained on the mind,” introspection could still be appealed to as a way of gaining knowledge of ourselves. (2015: 1805) However, as we will see in the discussion below, it will not help Morgan’s defense to appeal to forms of introspection that are radically dissimilar to S-acquaintance.

22 Eric Schwitzgebel (2016) calls this the “detection condition” on introspection.

Given the case as we have now described it, it strikes me as unclear whether the subject could have cogito-like thoughts. It is not so much that anything obviously prevents it. However, in considering what might prompt such thoughts in a subject with no perception of herself, including no detection of her own pre-existing mental states, and no memories of such perception or detection, it is difficult for me, at least, to have a firm intuition that such thoughts could come about in her.

Nonetheless, it would be simple to modify the case further so as to remove this uncertainty. We can stipulate that not only does the subject lack all forms of S-acquaintance with herself, but she is also being artificially stimulated in such a way as to produce perceptual and introspective experience of the usual kind. In other words, we can make the case more like a Matrix or Cartesian evil genius scenario, although we specify that the subject is not even able to detect the mental states induced in her (anything she seems to detect in this way is fabricated). Let us call this an illusory absence case. A subject in such a situation presumably could have a cogito-like thought. This is a first-person thought. Intuitively, it is about the one who thinks it. But it cannot be about her in virtue of her S-acquaintance with herself, because she lacks any such S-acquaintance.

Illusory absence cases seem to me to provide the core challenge to Aboutness through S-acquaintance and NAR. Do they challenge Aboutness through Epistemic Gain to the same extent? It might seem that Aboutness through Epistemic Gain is on better footing here, since it seems able to admit cogito-like thoughts as ways of gaining knowledge about oneself. If cogito-like thoughts are ways of gaining knowledge about oneself, then these thoughts can serve as determiners of the reference of first-person thoughts on an Epistemic Gain view. By contrast, the advocate of Aboutness through S-acquaintance cannot appeal to cogito-thoughts as determiners of reference, since they do not involve S-acquaintance.

But it is questionable whether the epistemic view really has an advantage here. There is an air of circularity in the claim that a thinker's first-person thought is about herself in virtue of her being the person she can gain knowledge about by thinking a thought as part of self-ascribing that thought—that is, by thinking first-personally that she is thinking that thought. To treat cogito-like thoughts as a
reference-determining form of self-knowledge amounts to saying that a thinker’s first-person thoughts are about her in virtue of its being her about whom she has first-person thoughts. So it seems to me that the defender of Aboutness through Epistemic Gain should be loath to appeal to cogito-like thoughts as a way of securing first-person reference in illusory absence scenarios. To do so is to follow the Reflexive Rule theorist in giving up on the effort to say in virtue of what first-person thoughts are about what they are about.

In sum, absence cases as they are usually described are not definitive counterexamples either to NAR or to broadly epistemic views of first-person reference. However, when they are built up into illusory absence cases, it is difficult to resist the conclusion that first-person thought can occur and be about the one who thinks it without this aboutness being in virtue of either the thinker’s S-acquaintance with herself or ways of gaining knowledge about herself. This, it seems to me, is the core problem for efforts to explain the aboutness of first-person thought in either way, and hence for NAR.

4.2. Diversion cases

As I mentioned above, Morgan thinks that diversion cases are more troublesome for Aboutness through Epistemic Gain than absence cases because, while absence cases can be dealt with by appeal to introspection, diversion cases require an explanation of why first-person thoughts are not about the sources of the information on which they are based. In the last section I argued that in fact absence cases cannot be effectively dealt with by appeal to introspection, neither by a defender of Aboutness through Epistemic Gain, nor by a defender of Aboutness through S-acquaintance. By contrast, I think diversion cases can be dealt with by rejecting the explanandum. That is, we do not have to explain why first-person thoughts in diversion cases are not about the sources of the information on which they are based, because it is not obvious that, in general, they are not about these sources. Instead, while it is highly intuitive that in such cases first-person thoughts are about the person thinking them, it is not uniformly so obvious that they are not also about the person from whom the information originates.

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Let me first acknowledge that in a case like the one from Armstrong cited above, it seems pretty clear that in imagining the subject thinking that she is walking, or has crossed legs, we would (in Lucy O'Brien's words) "surely take it that I am thinking, probably falsely, about myself, rather than thinking truly about the person who was the source of the information." This intuition seems solid about this particular case, but I think variants on the case provoke less certainty, in particular about the claim that the thinker is not thinking truly about the person who was the source of the information. For instance, imagine a similar case of receiving proprioceptive information from someone else's body, but imagine this happening while one is doing a mindfulness exercise. One pays close attention to (what one takes to be) the position of one's body, carefully observing (what one takes to be) the angle of one's elbow, the tension in one's wrist muscles, and so on. One has various first-person thoughts as a result of this attentive study, thinking that one's elbow is bent exactly ninety degrees, that one's wrist muscles are just tense enough to support a press-up, and so on. One makes a concerted effort to get it right. It seems at least somewhat plausible that although the person in this case is clearly thinking falsely about herself, she is also thinking truly about the other person (that is, if her proprioceptive judgments are accurate with respect to their body).

We might also consider a case in which the subject not only receives proprioceptive information from another person's body, but also nociceptive information, and quasi-memory of both types of perception from that other person. Imagine that on the basis of this information she has the first-person thought that the position she has (what she takes to be) her legs in now is more painful than the one they were in the last time she sat on a chair. Here, too, it seems plausible that in some sense she is thinking truly about the person who was the source of the information, even while also thinking falsely about herself. I suspect that the more information channels are diverted to the other person in an imaginary case, the stronger will be the sense that the thinker's first-person thoughts are in some sense about that other person, in addition to being about herself.

These cases may be compared to cases involving linguistic reference that have

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been called cases of "partial reference" or "multiple reference".\textsuperscript{26} In these cases, a speaker’s confusion of two objects makes it plausible that she refers to both of them with her use of a name or demonstrative, and thus that she may say something true about one of them while simultaneously saying something false about the other. Michael Devitt illustrates the phenomenon using names: if I know Devitt has a cat called "Nana" and Devitt points out to me a Persian cat who is not Nana and says, "This is Nana," then if I later say, "Nana is a Persian," I am referring by "Nana" both to Nana, whom I heard about earlier from Devitt, and to the cat I was shown, who is not Nana. I am speaking truly of the latter, but falsely of the former. As Devitt puts it, "there is only one strong [basic intuition]: the 'total performance' involves elements of truth and falsity."\textsuperscript{27} Susanna Siegel gives the following example (adapted from one used by Sydney Shoemaker in a different context):\textsuperscript{28}

\begin{quote}
You are a salesman in a tie store. By reaching past an opaque door into a display case, you put your hand on a blue silk tie. At the same time, another salesman is reaching through the cabinet and touching a red silk tie. Through the glass top of the cabinet, you can see the red tie being held by the other salesman, whose arm looks like yours. You mistake his hand for yours and you believe that you are the one touching the red tie. You say to a customer, who was looking in another direction for a red silk tie, "This one is red."
\end{quote}

Siegel points out that there are three things we might say about the use of the demonstrative 'this' in such a case: it refers to one of the ties but not the other, it fails to refer, or it refers to both ties. The advantage of the third option—the use of the demonstrative has multiple reference—is that it respects the intuition that the salesman says something true about the red tie, while also saying something false about the blue tie.

If it is right that in some diversion cases first-person thoughts are about the person the thinker receives information from in addition to being about the thinker, then such cases are not necessarily a problem for either Epistemic Gain or S-acquaintance views of the reference of first-person thoughts. For this is consonant with the claim that S-acquaintance, or ways of gaining knowledge, are partially determinative of that reference. Still, it might be objected that the diversion cases are


\textsuperscript{27} (1981: 145)

\textsuperscript{28} (2002: 10-11)
importantly different from Devitt's and Siegel's multiple/partial reference cases. In particular, the latter are cases about which it might be said that a single linguistic utterance is used to express two different thoughts. In Devitt's example, the speaker intends to say both that the cat she has been told about named "Nana" is a Persian and that the cat she was shown is a Persian. In Siegel's example, the speaker intends to say both that the tie he is touching is red and that the tie he is looking at is red. But in the diversion cases, what is at issue is not a linguistic expression that might be of two thoughts but a single, first-person thought. (Likewise, such single, first-person thoughts seem to be what are expressed using first-person linguistic expressions.) What, then, could factor such a thought into one instance of thinking falsely about oneself and one instance of thinking truly about someone else?

One might appeal to the claim that these first-person thoughts are not based upon identifications to argue that no such factoring is available. Consider that the tie salesman's utterance of "This is red" arguably expresses a single, perceptual-demonstrative thought based on the speaker's overall perceptual awareness. Even if this is a single thought, it is based upon the thinker's identification of the tie he is seeing with the tie he is touching. This makes it plausible that the speaker is in some sense expressing two thoughts, one about each tie. By contrast, it is an often-noted feature of first-person judgments based on proprioception, nociception and the like that they are not based on identifications. In thinking that I am walking or have crossed knees, I do not think that the person whose body I proprioceive has crossed knees, identify that person as myself and thereby think that I have crossed knees.

This seems right, but I wonder whether even thoughts like the one in Siegel's example are generally based on identifications. No doubt some of the time one consciously judges that something one is touching is the same thing that one is seeing, but much of the time our different sensory modalities seem to be integrated without any such conscious judging. As I type, fairly quickly, but not wholly by touch, I do not consciously judge that the keys I am hitting are the ones I am seeing, I just let my hand-eye coordination do its work. Suppose my coordination is off and in some instant the key I feel is not the one I (briefly) visually attend to. Having recently spilled cola on the keyboard, I think to myself that this key will be sticky. If the key I feel is in fact not sticky but the key I see is, it seems just as reasonable a
conclusion here as in the tie case that my thought is partly true—about the key I see—and partly false—about the key I feel. This does not seem to rely on my having made a judgment identifying the key I feel with the key I see. Maybe it is nonetheless right that I believe that the key I see is the one I feel under my index finger, even though I do not consciously judge this. But then it does not seem less right that I believe that the person whose body I proprioceive as having a hard but movable surface under its index finger is me. This is not a conscious identification judgment that I make, but I believe it, at least in the sense that if I were now told that I am in an Armstrong-style situation I would change my belief. This does not strike me as importantly different from the sense in which I believe that the key I am touching is the one I am visually attending to.

Thus, I think we can allow that S-acquaintance with, and ways of gaining knowledge of, individuals other than oneself can be partly determinative of the reference of first-person thought. It is to be expected that intuitions will vary about in which cases first-person thought is partly, or additionally, about someone other than the thinker, while also being about the thinker. We find similar variations in intuitions about in which cases a speaker is referring (in language) to more than one object. But as long as it is plausible that such multiple or partial reference can occur in first-person thought, there is not a need for defenders of the S-acquaintance and Epistemic Gain views to explain away the (supposed) fact that it does not occur.

4.3. Total diversion cases

Appeal to multiple or partial reference is thus a viable way of defending NAR in the face of diversion cases. One type of diversion case it does not seem to help with,

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29 Morgan argues that in diversion cases the diverted senses are not ways of gaining knowledge of the other individual. A rough way of putting his suggestion is that for the subjects in diversion cases, faculties like proprioception may be supplying information from the other individual in the purely causal, non-epistemically beneficial way mentioned in section 3.1 above. But they are not enabling knowledge about the other individual because it is not their function to provide awareness of bodies other than one’s own. (2015: 1806-1807) This is in the same way that vision, for example, does not function to provide awareness of the surfaces of our retinas, but of distal objects, even though in the purely causal sense our visual experiences give us information about the surfaces of our retinas. Thus, if a scientist artificially produced an image on one’s retina, the resulting visual experience would not be a way for one to gain knowledge of the state of one’s retina, even though it would carry information about this state. In effect, this suggestion assimilates diversion cases to absence cases, treating diverted senses in the same way as artificially stimulated ones. If this is the right thing to say on behalf of Aboutness through Epistemic Gain regarding diversion cases, then
however, are cases of total diversion, in which a subject has no S-acquaintance with herself because all of her usual ways of perceiving, remembering and detecting herself are diverted to another individual.

Imagine Beth, an ordinary human being living an ordinary life. Now imagine Ann, another human being who is "hooked up" to Beth's body as in Armstrong's case, but more comprehensively. Not only does Ann receive proprioceptive information from Beth's body, she only receives such information from Beth's body. Moreover, Ann receives perceptual information only from Beth's body, seeing what Beth sees, hearing what Beth hears, tactiley perceiving what Beth touches, and so on. In addition, Ann quasi-remembers only Beth's memories. Finally, all of Ann's perception-like awareness of mental states and properties (i.e., detection forms of introspection) is detection of Beth's mental states and properties. This seems to be enough to establish that any S-acquaintance instances on which Ann's first-person thoughts could be based are instances of S-acquaintance with Beth. So if Ann could think first-person thoughts in this scenario, then if NAR is correct, those thoughts should be about Beth.

This case is similar to an illusory absence case, except that Ann's perception and memory has its source in another individual, Beth, rather than in a fabrication. Just like in the illusory absence case, it seems that Ann could think first-person thoughts in this scenario. For Ann is not deprived of the kind of stimulus and information that might be needed to prompt first-person thought. However, it also seems that at least some of the first-person thoughts Ann would have in this scenario would not be about Beth. In particular, it seems that Ann could easily be prompted to think cogito-like thoughts, such as thinking that she is thinking that grass is green. These thoughts would intuitively be about Ann, not about Beth. (After all, the thought is intuitively true, but Beth, we may assume, is not thinking that grass is green.) But if they were about a particular thing partly in virtue of the thinker's S-acquaintance with that thing, then they could only be about Beth.

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30 Here I follow Armstrong in taking it that he is "perfectly conceivable that we should have direct awareness of the mental states of others" (1993: 124), at least as long as that direct awareness is understood as detection-style introspection. (Armstrong suggests that in a case where one has such awareness of another's mental states we might call it 'telepathy' instead of 'introspection'.)
One can imagine a philosopher of an enactivist or embodied cognition bent arguing that in such a case, the thinker of the cogito-like thought is not Ann, but the odd combined entity of Ann and Beth. Since Ann’s cognitive and perceptual activity is so seamlessly and comprehensively integrated with Beth’s, the thinker who is Ann is now Ann as augmented by Beth. So when this thinker thinks a cogito-like thought, the thought is about this augmented thinker. It may be about this augmented thinker in virtue of the augmented thinker having S-acquaintance with itself, since it has S-acquaintance with Beth who is a part of itself.

But we can cut off such avenues by taking Beth out of the picture and turning this into an illusory absence case. In such a case there is no other individual who could be a part of the relevant thinker and with whom that thinker has S-acquaintance. So it seems the thoughts could not be about the thinker in virtue of S-acquaintance with the thinker. Hence the total diversion case either is a real problem for Aboutness through S-acquaintance and for NAR, or leads us back to the illusory absence case that is a real problem. For the same reasons as laid out above, it is also a problem for Aboutness through Epistemic Gain. But again, the problem stems from the thinker’s lack of S-acquaintance with herself (or of ways of gaining knowledge of herself that could determine first-person aboutness). It does not stem from her having these links to others.

5. Prospects for a Satisfying Reflexive Rule Account?

At this point, it might seem inevitable that for first-person thought, Aboutness through Epistemic Gain and Aboutness through S-acquaintance should be rejected (the latter taking NAR down with it). This would leave us with Aboutness by Reflexive Rule, and the choice of either accepting that there is nothing more to say about in virtue of what first-person thoughts refer to what they do, or the task of developing a more substantive picture of what it is for a type of thought to be governed by a reference-determining reflexive rule.

One such picture of the latter sort is offered by François Recanati. Recanati describes his view as an epistemic view and as in...
claims that first-person thoughts refer to what they do in virtue of involving a
certain type of indexical mental file which he calls the "SELF file". Like all indexical
files in Recanati’s picture, a SELF file refers to a particular thing in virtue of the file’s
having the function of exploiting a certain epistemically rewarding ("ER") relation
between the subject in whose mental architecture it appears and that thing. In the
case of SELF files, this epistemically rewarding relation is *identity*. Identity is an
epistemically rewarding relation for a thinker in virtue of making certain kinds of
knowledge possible for her given her cognitive equipment. For those whose
cognitive equipment includes faculties like proprioception, kinaesthesia and
introspection, identity is epistemically rewarding and hence fit to be exploited by a
mental file. Since SELF files refer to particular objects in virtue of having the function
of exploiting the identity relation between subjects and those objects, and since the
identity relation relates any subject to herself, it follows that whenever a SELF file is
used (i.e., whenever anyone thinks a first-person thought), it refers to the thinker.

This seems to me to be an attempt at giving substance to the view that
first-person thought is governed by a reflexive reference-determining rule. Recanati
says that the functions of mental indexical files like the SELF file play the same role
for these files as conventional meanings play for linguistic indexicals, namely:
"through their functional role, mental file types map to types of ER relations, just as,
through their linguistic meaning (their character), indexical types map to types of
conextual relation between token and referent." (2012: 60). So a SELF file, because its
functional role is to exploit the identity relation for information, refers to the object
identical to the subject. In this way, functional role provides a substantive notion of
governance by a rule, doing for thoughts what conventional meanings are supposed
to do for language. Recanati’s picture adds substance to First-Person Aboutness by
Reflexive Rule by taking the claim that first-person thought is about whatever the
thinker bears the identity relation to and saying in virtue of what this is the case. The
story is that it is the case in virtue of the identity relation being epistemically
rewarding given the cognitive equipment of the thinker.

Is this a satisfactory substantive notion of first-person thoughts being governed

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agreement with Evans and Morgan in taking an epistemic approach. But it seems to me that in fact
his approach is better described as a reference rule view. I will elaborate on this as the section
develops.
by a reflexive rule? I do not think it is entirely satisfactory, for the following reason. In illusory absence and total diversion cases, faculties such as proprioception and kinaesthesia do not make the identity relation epistemically rewarding. These faculties do not enable Ann to gain knowledge of the person to whom she is identical; if they enable her to gain knowledge of anything, it is Beth. They do not enable the person in the enhanced Matrix scenario to gain knowledge of the person to whom she is identical. Of course, if one includes cogito-like thoughts as types of introspection, one can say that introspection still allows these subjects to gain knowledge about the people to whom they are identical. But again, that these thoughts are ways for these subjects to gain knowledge about themselves depends on these subjects’ first-person thoughts being about themselves. So this appeal to introspection cannot be used as part of a satisfying explanation of in virtue of what first-person thought is about what it is about.

In what sense, then, can a mental file possessed by thinkers in these situations function to exploit the epistemically rewarding relation of identity? Recanati might say that a thinker in an illusory absence situation deploys a malfunctioning token of the file-type SELF. The token would be malfunctioning because it fails to meet the "normative requirement corresponding to the function of the file," which is that "the subject should stand in a suitable ER relation to some entity (the referent of the file)." Nonetheless, the file-type might be tokened (and, presumably, refer to the individual to whom the thinker bears the identity relation) in the absence of such a relation so long as there is "a presumption that the normative requirements are (or will be) satisfied." The problem with this approach, it seems to me, is that there might not be a presumption that identity is an epistemically rewarding relation—for instance, the subject might be convinced that she is in an illusory absence scenario—yet cogito-like thoughts still seem thinkable.

Perhaps a more promising reply is to emphasize the importance of the type of file of which individuals' SELF files are tokens. It is the function of this type of file to exploit the relation of identity, which is epistemically rewarding given the cognitive equipment of some relevant type of thinker in which this type of file occurs. As Recanati puts it, "Mental files are typed according to the type of ER relation they

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32 Recanati (2012: 63-64).
exploit." But here the question arises as to whether individual mental files are of the type SELF in virtue of exploiting the ER identity relation, or whether individual mental files exploit the ER identity relation in virtue of being of the type SELF. If the former, then it is not clear that subjects in the illusory absence cases have what could properly be considered tokens of the type SELF. This would imply that they do not think first-person thoughts, which seems to be false. If the latter, then the Question of First-Person Aboutness is going to be answered roughly as follows: a first-person thought refers to the one who thinks it in virtue of using a mental file of a type that exploits the ER relation of identity. But there is no longer anything to say about in virtue of what the first-person thought uses a mental file of that type. It is not in virtue of the thought's involving a file that exploits the identity relation, given that in illusory absence cases it seems subjects could not have such a file. So we seem to be stuck with the answer that a first-person thought is about the one who thinks it in virtue of being the type of thought that is about the one who thinks it.

6. Conclusion: The crux of the problem

Let us take stock. We saw that NAR requires that for first-person thought, the right account of reference determination must be based upon instances of S-acquaintance. But there are familiar problems for epistemic views of reference determination for first-person thought which seem to apply equally to S-acquaintance views. These problems might augur for rejection of such views (and NAR to boot), but as Morgan has argued, the alternative reflexive rule approach to the reference of first-person thought seems not to answer the question of reference determination at all. This provides motivation to try to overcome the familiar problems for epistemic views or S-acquaintance views. In digging in to these familiar problems, I have found that as they are usually presented, they are not such big problems after all. But variant presentations of them do reveal a serious problem: it is not clear how either epistemic or S-acquaintance accounts of the reference of first-person thoughts can allow for cogito-like thoughts to be about their thinkers in illusory absence cases. It is not helpful to point out that cogito-like thoughts are ways of gaining self-knowledge and can be included in an epistemic account of first-person reference determination. For what makes these mechanisms be ways of

33 What might the relevant type of thinker be? Perhaps human beings? Or rational beings?
gaining knowledge about a particular individual is that the thinker's first-person thoughts are about that individual.

So it seems to me that there is a real problem for both epistemic accounts of first-person reference determination and S-acquaintance based accounts. Thus, there is a real problem for NAR. However, there is also a real problem with dismissing these accounts: it seems to leave us with no account of what makes first-person thoughts be about what they are about. Maybe the problems for the alternative accounts are insuperable enough that we will in the end be driven to accept a kind of primitivism about the reference of first-person thoughts. This would in turn demand a basic, albeit limited, exception to NAR. I am not tempted by this option, but at present I am also not sure how to solve the problems for S-acquaintance and epistemic views of the reference of first-person thought. I hope that the above explorations have at least succeeded in properly carving out these challenges.

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